Patent Claims

What is claimed is:

1. A piston compressor, particularly a hermetically enclosed refrigerant compressor comprising:
a compressor block having a bore extending therethrough;
a crank shaft positioned for rotation in the bore, the crank shaft defining an eccentric crank pin at one end thereof;
the crank shaft and crank pin cooperating to define an oil channel arrangement;
a connecting rod attached at one end to a bearing element such that there is no relative motion between the bearing element and the connecting rod, the connecting rod having a passage extending therethrough and in communication with a channel formed by the cooperation of the connecting rod and the bearing element;
the crank pin extending into the bearing element and being positioned for rotation relative thereto; and
a control arrangement providing communication between the channel and the oil channel arrangement, at least once per revolution of the crank pin.

2. A compressor according to claim 1, wherein the control arrangement comprises at least one radial bore in the bearing element, which bore overlaps an oil source upon a rotation of the crank pin.

3. A compressor according to claim 2, wherein the oil source is formed by an opening in the crank pin and forming part of the oil channel arrangement.

4. A compressor according to claim 3, wherein the crank pin defines an oil pocket in a area proximate the opening forming part of the oil channel arrangement.

5. A compressor according to claim 2, wherein the radial bore is offset in a circumferential direction relative to the opening of the passage into the oil channel.

6. A compressor according to claim 1, wherein the connecting rod includes a first connecting rod eye opposite the end attached to the bearing element, the connecting rod eye surrounding a piston bolt having a lubrication channel that overlaps the passage at least once during a revolution of the crank pin, the control arrangement establishing the communication at that time.

7. A compressor according to claim 1, wherein the control arrangement establishes the communication during a suction phase of the compressor.

8. A compressor according to claim 1, wherein the control arrangement establishes the communication a second time at the beginning of a compression phase of the compressor.

9. A compressor according to claim 8, wherein the bearing element defines two radial bores arranged at a predetermined distance relative to each other and to the opening of the passage.

10. A compressor according to claim 1, wherein the connecting rod defines a rod eye positioned over the bearing element, the bearing element and the rod eye and bearing element each include alignment marks.

11. A compressor according to claim 1, wherein in the circumferential direction the oil channel is limited to a predetermined section.